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SUMMARY

The Afghan transportation system, primitive by Western standards, adequately serves the small requirements of Afghanistan's agricultural economy. For troop deployment and resupply of their forces in Afghanistan however, the Soviets have relied on both massive airlifts and the ground transport network. Despite problems created by port and road congestion at Soviet border points, rebel attacks on LOC's, 25X1 and havoc brought by winter snows, the Soviets have managed to meet their minimal essential needs by air and ground.

In November, prior to the Soviet invasion, delays in Soviet shipments to Afghanistan were experienced at the Soviet-Afghan border; some of this congestion had been relieved by early January but by mid month transportation bottlenecks were observed once again at Soviet border points and Afghan river ports. Within Afghanistan, lines of communication (LOC's) have been the targets of rebel strikes. Soviet units reportedly cannot move along the main highways without armored or air escort. In addition to harassing troop convoys, the insurgents are disrupting the flow of food and fuel from the countryside to the cities, which could bring serious winter shortages unless the Soviets undertake a major resupply effort. Delays 25X1 in the shipment of fuel oil products are currently creating

internal transport difficulties. Heavy snows are also blocking roads and contributing to shortages. 25X1

A permanent Soviet presence in Afghanistan will probably lead to a rapid improvement in major Afghan lines of communications. The priorities established by the Soviets are likely to be expanded internal LOC's and a major bridge crossing on the Amu Darya River. Such improvements will enhance Afghanistan's international and domestic road network and upgrade the USSR's logistic capabilities in the region. 25X1

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The Current Transport Situation in Afghanistan

Transport congestion created by logistical support of Soviet forces, rebel attacks on lines of communication, and winter snows have impeded Soviet resupply operations in Afghanistan but have not deprived the Soviets of minimum essential requirements. Congestion at the Soviet border points of Kushka and Termez initially led the Soviets to impose a freeze on all shipments to Afghanistan in November. Additional steps taken by the Soviets in mid and late November to alleviate a buildup of cargoes at the border points reportedly included refusing all conventional freight and halting issuance of railway shipping permits to Afghanistan until March 1980. 25X1 Early January congestion had been alleviated at Termez and freight volumes were exceeding plans. Further west, transportation availability on the route from Kushka to the Afghan border city of Towraghondi, however, was very tight and acceptance of goods was extremely limited. Freight was moving through the Afghan river port of Jeyretan without difficulty, but the river port of Shir Khan was reportedly blocked. 25X1

By mid January congestion was once again building up at 25X1 Soviet border points and Afghan river ports.

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Within Afghanistan the rebels have cut vital lines of communication by felling trees, seizing bridges, and opening floodgates on mountain streams.

In particular, the Soviets have had problems keeping the road open between Termez and Kabul, which passes through extremely difficult terrain. Soviet army units cannot move along the main highways without armored or air escort. In addition to harassing troop convoys, the insurgents are disrupting the flow of food and fuel from the countryside to the cities, which could bring serious winter shortages unless the Soviets undertake a major resupply effort.

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As of January, the Afghanistan government tried to give the appearance that their civil airlines were functioning normally. An Ariana Airlines spokesman stated that the international carrier had begun commercial operations and that Kabul airport was open to commercial traffic. However, the Afghanistan government was unhappy with slow deliveries of aviation related petroleum products from the Soviet Union. They asked the Soviets to expedite the delivery of several varieties of fuels, oils, and lubricants.

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Delays in the shipment of fuel oil products are also being noted creating internal transport difficulties in Afghanistan, and the Soviets are being urged to make deliveries as soon as possible.

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Afghan provincial authorities are reporting critical shortages of food and fuel in all provinces. Heavy snows were also contributing to these shortages with many roads blocked.

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DISCUSSION

The Afghan Transportation System

The transportation network of landlocked Afghanistan is adequate for the modest requirements of the predominantly agricultural economy. The system is almost entirely based on a limited highway network supplemented by a few navigable waterways and rudimentary civil aviation. There is no railroad system. Overall internal transport capability has been enhanced by highway improvements since the 1960's, particularly along the western route extending from the USSR across Afghanistan to Pakistan. International overland connections are provided by good highway links to the rail systems of the USSR and Pakistan and by a major waterway -- the Amu Darya -- which forms part of the northern Afghan border with the USSR.

Highway Network

Highways are by far the most important mode of transportation in Afghanistan. They form a limited but adequate transportation network for both the domestic and international traffic requirements of Afghanistan's predominately agricultural economy. The pattern of development of the highway network has been largely dictated by the main geographic features and economic considerations of the country. The greatest concentration of roads is north and south of the Hindu Kush mountains,

but the more important part of the system consists of a circumferential route from which radiate feeder roads to interior points. [redacted] 25X1

International Highway Links

Principal international road links are four border crossings shared with the Soviet Union. From these crossings, five roads lead southward and connect to Afghanistan's internal highway system. (See Table 1.) Three of these roads are hard surface, all weather routes of good capacity while two are gravel and of limited capacity. A concrete road leads south from the Soviet town of Kushka to Herat and was used by the Soviets in the recent invasion as a crossing point into western Afghanistan. Goods shipped by the Soviet rail line terminating just inside the border are transshipped and trucked southward. The other hard surfaced routes leading southward from the border towns of Shir Khan and Jeyretan carry traffic transshipped by ferry from Soviet rail and road lines which parallel but do not now cross the border. To increase the economic and military usefulness of the Jeyretan route, a road and rail bridge is scheduled to be constructed, the first bridge to be built on the border over the Amu Darya. From the border towns of Keleft and Hazareh Toghay to Mazar-i-Sharif, two secondary roads provide additional connections with the USSR. These, like the connection at Shir Kahn, are serviced by ferries across the Amu Darya. [redacted] 25X1

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There are two principal all-weather routes of significant capacity between Afghanistan and Pakistan. These include the route from Kabul east to Towr Kham, thence by the Kyber Pass to Peshawar, Pakistan, and the road from Qandahar to the border area of Spin Buldak, Afghanistan and Chaman, Pakistan. Peshawar and Chaman are connected by rail with Karachi, the closest Pakistani seaport and a principal outlet for Afghanistan's seaborne trade. 25X1

Connection with Iran is primarily by one high capacity, hard surfaced route from Herat to the border near Islam Qala. Although it is sometimes closed by extensive flash flooding and drifting sands, this route, in connection with the Kushka to Herat road, provides the Soviet Union with excellent access to Mashhad in northern Iran. 25X1

Though not a major link, a road which connects Afghanistan and China through the Wakhan corridor should be noted. Beginning at Kunduz as a hard surfaced, high capacity road, numerous obstacles limit its extensive use as a major trade route with China. The road is subject to snow blockage in winter for weeks at a time and by heavy rains in the spring. It is subject to landslides and washouts and narrow bridges and fords are prevalent throughout the route. It is passable to trucks and busses for only a portion of its length. Beyond Taloqan to Eshkashem the route is a low capacity gravel road which becomes a motorable natural earth track to Qala Panjeh and then continues as a trail to the border with China. 25X1

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Domestic Highway System

The primary and secondary road system inside Afghanistan is estimated to be about 21,500 kilometers in length, of which approximately 2,726 kilometers are paved primary highways which will eventually be extended in a ring around the country. Road construction has received top priority in Afghanistan's economic development, and, with foreign aid, has been substantially expanded over the past years. The paved highways are supplemented by over 4,200 kilometers of secondary gravel roads and by about 14,600 kilometers of natural earth roads which are sometimes impassable due to weather conditions.

The primary section of the domestic highway network is a U-shaped, bituminous surfaced section which runs from Mazar-i-Sharif in the north southward to Kabul and Qandahar, skirting the rugged Hindu Kush Mountains. From Qandahar, a concrete roadway turns northward and continues to Herat. This route is a paved, all weather road of substantial capacity with sections built by both the US (Kabul - Qandahar) and USSR in the 1960's. From Herat eastward to Mazar-i-Sharif the condition of the circumferential route is poor. Although portions have been paved, a section between Herat and Sheberghan has a gravel and improved earth surface, thereby severely limiting sustained vehicular traffic. Poor weather conditions, especially in winter, also limit full use of this roadway.

Soviet engineering surveys for this section have been finished although a final completion date is not available. When in full operation, this route will provide the Soviet Union with greater access to the northern section of Afghanistan and a good motorable route to the Iranian border. It will also complete the circumferential highway around the country, linking all major population and agricultural areas north and south of the mountainous interior. The main circumferential route is supplemented by several throusand kilometers of low to moderate capacity gravel and natural earth roads throughout the interior. [redacted]

Afghan Waterways

Afghanistan has about 1,200 kilometers of navigable waterways. The Kabul, the Helmand, and the Amu Darya and their tributaries are Afghanistan's main rivers but the Amu Darya, which forms part of the northern border with the USSR, is the only one that has been developed and is utilized by modern river craft. The Helmand River, which originates in the central mountain area and flows south and west to Iran, is navigable by native craft for 470 km upstream from the Iranian border. The Kabul River, which also originates in the central mountain area, is navigable at Jalalabad but with minimum local traffic only. We doubt that it is navigable in the Pakistan border area. [redacted]

[redacted]

Steamers and barges of the Soviet Central Asian Shipping Line operate throughout the year on the Amu Darya as far east as Shir Khan. Soviet vessels operating on the river include 160 horsepower diesel tugs, and self-propelled barges with capacities up to 500 tons. Afghan craft are mainly native types of primitive design and construction, although some have capacities up to 10 tons. For most, propulsion is manual.

Most of the trade between Afghanistan and the Soviet Union has moved by barges of the Soviet Central Asian Shipping Line on the Amu Darya River. Service is between the Soviet rail-served river port of Termez, the Afghan port of Shir Khan and the transloading point at Jeyretan.

The most important Afghan river port is at Shir Khan across the Amu Darya from an abandoned section of a Soviet rail spur that goes to Pyandzh, USSR. It has a POL tank farm with a capacity of over 46,000 barrels, and at least 2 quays with 10 cranes of capacities up to 20 tons.

There are no port facilities across from Termez, USSR -- the main Soviet rail yard north of the Afghan border -- but the river bank at Jeyretan in Afghanistan is used as a transshipment point.

Civil Air

Prior to the late December invasion by the Soviets, the civil airline system in Afghanistan consisted of two scheduled airlines. The government controlled Ariana Airlines is the country's only international carrier. With a small fleet of one McDonald Douglas DC-10, two Boeing 727's, and one Boeing 720, Ariana's route network included London, Amsterdam, Rome, Paris, Frankfurt, Istanbul, Tehran, and Moscow. Although there were some reports of maintenance irregularities, overloading of aircraft and non-adherence to pre-flight rules in 1979, 25X1 Ariana transported passengers, cargo, and mail regularly.

Bakhtar Airlines, the domestic airline carrier, performed scheduled service and nonscheduled feeder operations throughout the country. The aircraft flown -- the Russian Yak-40 and the Canadian Twin Otter -- were adaptable to the secondary Afghan airfields. 25X1

Airfields

Afghanistan has twenty-eight civil airfields of which 25 percent are paved. Kabul International and Qandahar International are the country's principal airfields. (See Table 2.) Both provide all weather services, good support facilities and the only civil air fields with hangers. Considering the size of the airfleet and the growth patterns of the civil air section, Afghanistan had no need for more sophisticated airports. The remaining fields -- mostly located in the northern

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regions of the country -- have minor fuel storage facilities, workships and other support buildings. As of December, the Afghans appeared to have enough fields to meet their normal airline needs. Major airfield improvements were not in evidence. [redacted] 25X1

Trade Patterns

Afghanistan's foreign trade volume by international standards in insignificant; exports have averaged only US $272 million annually during 1974-78 while imports have reached only $285 million a year during the same period. Kabul's principal exports consist of natural gas (via pipeline to the USSR) and primary and processed agricultural products. Imports are mainly simple manufactures, transportation equipment, petroleum products, and textiles. The Soviet Union is Afghanistan's leading trading partner, absorbing 40 percent of Kabul's exports and accounting for a quarter of its imports. Refined products are the most important Afghan import from the USSR, with natural gas the key export to the Soviet Union. Other leading trading partners are the UK and Pakistan -- together accounting for 30 percent of Afghanistan's total exports -- and Japan, which accounts for some 27 percent of total imports. [redacted] 25X1

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At present the bulk of the trade between Afghanistan and the USSR is carried by barges owned and operated by the Soviet Central Asian Shipping Line along the Amu Darya river. In the main, these ply between the Soviet rail served river port of Termez and the Afghan ports at Termez and Shir Khan. Western trade has been adversely affected by the length of time required to make overland journeys via the existing major transportation routes through Pakistan, the USSR, and Iran.

Outlook

The Soviets currently are consolidating their positions on all of Afghanistan's major exit and entry points, securing their main supply routes and resupplying by road and air. Indications are that they are preparing for a long stay. A permanent Soviet presence in Afghanistan is likely to presage a rapid improvement in major Afghan lines of communications (LOC's). The priorities established by the Soviets are likely to be 1) an accelerated time table to bridge the Amu Darya River in the Termez-Jeyretan area. 2) Rapid implementation of plans to upgrade the major circumferential route linking Kushka, Herat, Qandahar, Kabul, and Shir Khan. 3) Upgrading the road system leading west of this circumferential road to Iran. Such improvements will significantly improve Afghanistan's international and domestic road network and provide the Soviets with enhanced logistic capabilities in the region.

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The most significant project from an economic and military point of view is the revival of the plan to build a rail/highway bridge, which will take between four and five years to complete at an estimated cost of $50 million, across the Amu Darya River in the Termez-Jeyretan area. In addition, a new rail line will be constructed between Termez to a point 12 km inside Afghanistan, where a rail/road transloading and transshipment center is to be established. By constructing a road and rail link over the river, double handling of cargo into and out of barges will be eliminated, thus reducing transport costs and speeding the transit of goods. The primary purpose of the proposed bridge and route development is economic. However, from the military point of view, completion of the route will provide the USSR with a more direct route into Afghanistan.

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The other projects under a new agreement include the supply of equipment and materials for:

-- upgrading of the existing road from Qonduz to Shir Khan;

-- the completion of the roads from Sheberghan westwards to Herat and from Talogan to Feysabad. This involves the reconstruction and realignment of new sections between Sheberghan and Herat and between Talogan and Feysabad.

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Table 1

Afghanistan: Selected International Road Links

Route	Length	Surface Type	Surface Condition	Bridges	Tunnels/Ferries	Terrain	Capacity (MTS)
USSR							
Kabul/Shir Khan	425 kms						
Kabul/Dowshi	203 kms	bituminous	good	41, longest 145 meters across the Dorra Andorab River	1 tunnel, length 2676 m	mountainous	7300-9100
Dowshi/Shir Khan	222 kms	bituminous	good	4, longest 110 meters across the Khanabad River	1 ferry across Amu Darya River. Capable of transporting heavy vehicles and equipment	flat to mountainous	7300-9100
Naebabad/Jeyretan	55 kms	bituminous	good	combined road and rail bridge with a length of 800 meters under construction across the Amu Darya River	ferry from Keleft services this crossing	undulating	9000-11200
Mazar-e-Sharif/ Hazareh Toghay	64 kms	gravel	poor to fair		ferry from Keleft services this crossing	undulating	136-780
Mazar-e-Sharif/ Keleft	94 kms	gravel	poor to good		Soviet ferry capable of transporting heavy vehicles and equipment crosses the Amu Darya River	undulating	136-780
Herat/Towr Ghundi	116 kms	bituminous concrete	fair	5, longest 122 meters across the Galla Bed River		flat to hilly	9000-10200

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(Table 1 continued)

Afghanistan: Selected International Road Links (continued)

Route	Length	Surface Type	Surface Condition	Bridges	Tunnels/Ferries	Terrain	Capacity (MTS)
Pakistan							
Kabul/Towr Khan	276 kms	bituminour concrete	good	14, longest 183 meters across the Chapriar Rud	8 tunnels, longest 33 meters at Kilometer 35	undulating to mountainous	7300-9100
Kandahar/Spin Buldak	112 kms	bituminous	good	7, longest 350 meters across the Arghastan River		flat to undulating	8100-9000
Iran							
Herat/Islam Qala	124 kms	bituminous	good	2, longest 274 meters across the Hari Rud		undulating	6500-8100
China							
Kunduz/Border	449 kms						
Kunduz/Khanabad	26 kms	bituminous	good			flat to hilly	7300-9100
Khanabad/ Feyzabad	260 kms	gravel	fair	7, longest 239 meters across the Bangi River		flat to hilly	145-753
Feyzabad/ Eshkashem	148 kms	gravel	fair	1, with a length of 10.5 meters across the Yakhshera River		undulating to mountainous	100-700
Eshkashem/Qala Panjeh	101 kms	earth	poor to fair			hilly to mountainous	0-100
Qala Panjeh/ Border	260 kms	earth	poor to fair			mountainous	0-50

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Table 2

Afghanistan: Major Civil Airfields

December 1979

	Runways		
	Surface	Dimentions (meters)	Function
Kandahar (Indernational)	Asphalt	3,200 x 45	Civil
Kabul (International)	Concrete	2,800 x 45	Civil
Herat	Concrete	2,500 x 45	Civil
Kunduz	Asphalt	2,000 x 45	Civil
Mazar-i-Sharif	Asphalt	2,000 x 45	Civil
Jalalabad	Asphalt	1,850 x 45	Civil
Maimana	Gravel	1,500 x 30	Civil

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